Term paper by Dag Vanberg Korshavn

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- The Regulatory Difficulties in Implementing the 'European Union Emissions Trading Scheme' -

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Executive summary

This is a paper which has its purpose to address questions in relations to the field of Political Economy of Regulation held at the Norwegian School of Management. Moreover, this specific paper seeks to analyse the effects and implications which has been dealt within (and still is) in terms of the European trading system for emissions. The theme has been approved by Prof. Kjell A. Eliassen and I shall therefore try to give the reader some 'in depth' knowledge concerning the European Union Emissions Trading Scheme.

Even though environmental issues came onto the agenda in the 1960s, it was not until the Kyoto summit in 1997 the trading scheme truly started to 'grow'. After harsh negotiations between the US and the European Union at the Kyoto summit and on, the European Trading Scheme was established in 2003 and as a viable policy in 2005. The Emissions Trading Scheme was divided into two phases which I emphasise in this paper. Phase 1 is now history and phase 2 has been embraced for about a year. I shall elaborate to some extent in this paper that there have been several flaws/difficulties in the initial phase which ran from 2005 to 2007. Most notably is the element of 'over-allocations' which got way out of hand so to speak. This has been to some degree corrected; however, there are still difficulties which should be mentioned as possible flaws in the present phase.

Moreover, another big part of this paper is the regulatory body which I shall try to analyse. What has been seen in the initial phase of the trading scheme is that the decentralised structure of the regulation has caused some disturbance such as the over-allocation of permits. I thereafter, discuss the 'capture' momentum that has proven to be extensive in light of the industries effects on policy-making.

1.0 Introduction

Economic activity gives rise to flows of greenhouse gas (GHG) emissions. GHGs are uniformly mixing pollutants; the geographical location of the pollution impacts is independent of the location of the emission sources. Bearing in mind that all nations are emitters and each is affected by emissions of all others, GHG emissions can be thought of both as a global public "bad" and as a reciprocal spillover problem. GHG is a generic term consisting of several types of gases such as methane (CH_4) which comes from agricultural activity and the decomposition and disposal of waste. Another component is chlorofluorocarbon (CFC) emissions (Perman, Ma, McGilvray and Common 2003) which also act as potential global-warming substances. However, the principal GHG is carbon dioxide (CO_2) which derives mainly from fossil-fuel use and deforesting.

The issue concerning climate change has become rapidly more evident for national governments, as well as for companies. Governments have through different incentives and measurements asked the business community to participate and take responsibility for the reduction of GHG emissions. However, challenges have emerged in terms of locating the equilibrium between "sticky" regulations and the "carrot" for participating in reducing and improving the environment. In this line of thought, regulation of CO_2 emissions is then an interesting topic of discussion in the perspective of regulation theory.

The EU was initially a leading sceptic to international emissions trading of GHG in the run-up to the 1997 Kyoto Protocol (Skjærseth and Wettestad 2008[a]). However, on the 23 October 2001, four years after, the European Commission issued a proposal for an EU-wide scheme for GHG emissions trading. Followed with extensive processes of negotiations, the European Parliament endorsed an amended version of the Directive on 2 July 2003, which further was adopted by the Council of Ministers on 22 July 2003 (Boemare, Quirion and Sorrell 2003). At this time, the European Union (EU) endorsed the Directive partly in order to avoid regulatory burdens restricting the competitiveness of domestic industries in Europe. The EU Emissions Trading Scheme (ETS) became binding on 1 January

2005, and has since then been a global forerunner in creating the largest emissions trading scheme in the world.

The first trial phase from 2005 – 2007 has given insight on regulation of emissions. Nevertheless, phase I – as it has been named – has received criticism in terms of the inefficiencies and its inabilities to actually reduce the percentage of CO_2 emissions.

The second phase is now in place and some shifts have been made to prevent the "downsides" which appeared in the trial phase. However, difficulties have been brought into light in terms of the decentralised structure of the system and the level of stringency.

1.1 Outline of the paper

The main goal for this paper is to give the reader some insight in the EU ETS and its initial difficulties in implementing a market-based instrument in the perspective of a positive regulatory theory. In my theoretical approach to the problem of implementation, I have had special attention to regulatory competition and how it has influenced the outcomes.

The paper is further outlined as follows; section two gives a retrospective glance of the history behind international cooperation on climate issues and the factors which made EU ETS possible; section three outlines the structure of the trading scheme and its aims and objectives; section four gives an evaluation of the two phases; section five tries to explain in a theoretical manner the issues related to EU ETS and its regulatory bodies; section six embraces future prospects and some recommendations for future developments; while section seven finalises the paper with some concluding remarks.

2.0 International cooperation in climate change policy

As mentioned above, the EU ETS is the first large-scale international emissions trading system in the field of environment. An elaborative explanation of the system shall not be given in this section, but some focal points should be mentioned. The ETS is a scheme whereby companies are allocated permits for their emissions of GHGs in accordance with the overall environmental ambition of their government's National Allocation Plans (NAPs); they can then trade these permits with each other (Skjærseth and Wettestad 2008[b]). The distribution and the decision upon the number of permits represent the core of implementing the EU ETS. The adoption of the 2003 emissions trading Directive (europa.eu[a]) was an attempt to enable the Community and the respective Member States to meet the commitments to reduce GHG emissions made in the context of the Kyoto Protocol. Moreover, a further linkage were made in the 2004 Directive (europa.eu[a]) which made it possible to link the EU ETS to the Kyoto Protocol's flexible mechanisms – *emission trading, banking, joint implementation (JI)* and *clean development mechanism (CDM)*.

2.1 The Kyoto Summit

To be able to understand the history behind the evolution of the EU ETS we have to go back to its origin – the Kyoto summit in 1997. At this 11-day summit, two contradictory positions appeared. The negotiations between the EU and the United States (US) brought out two positions in terms of implementation of the Kyoto Protocol. The reason lies in two conflicting policy paradigms; US free-market environmentalism and EU risk-prevention leadership (Damro and Méndes 2005). Moreover, these paradigms were transformed at Kyoto into a US demand for an emission trading system and an EU call for binding commitments and fixed timetables for emissions cuts.

However, since the EU climate change policy is embedded in an ongoing internal process (Damro and Méndes 2005), it became gradually more evident the limitations of such 'command-and-control' policy instruments. The process was gradual because it became more noticeable that the *demand for EU leadership* in

international climate change policy; *committed relationships* to stringent emissions reduction; and the necessity to *protect the internal market*'s international competitiveness, were seen as more precarious than earlier arguments in favour of economisation.

2.1.1 Towards 'New Environmental Policy Instruments'

Originating in the late 1960s, the first generations of environmental policies throughout the Member States of the Community primarily followed the so-called 'command-and-control' approach (Golub 1998). This approach is characterised by direct regulation. In other words, government's outsets uniform environmental standards throughout large regions, mandates the abatement methods required to meet such standards, licenses production sites which adopt the required methods, and assure compliance through sanctions and monitoring. However, the limitations and regulatory failures of the traditional 'command-and-control' approach became more evident. Regulatory failures in relation to such a traditional system of inflexible method of reducing emissions could – according to Jonathan Golub (1998) – fall into three categories: *economic inefficiency, environmental ineffectiveness* and *democratic illegitimacy*. By imposing uniform reduction targets and technologies which ignore the variable pollution abatement costs facing individual firms legitimate the arguments of economic inefficiency. Moreover, by operating with 'command-and-control' is an expensive approach for limitation of emissions, and have been criticised in terms of its limitations in operating as an effective environmental tool. Further, regulatory bodies responsible to the public for identifying environmental problems, standard setting, determining what constitutes the best available technology and enforcing compliance develop "... close and often dependent relationships with industry because of the latter's detailed knowledge of, and direct interest in, polluting activities and potential abatement options" (Golub 1998: 4). By its very nature, 'command-and-control'-structure fail to alleviate the information asymmetries which effectively exclude the public and environmental interest groups from the process of decision making which result in allowing emitters to somewhat "capture" the regulators. Consequently, leads to shaping and blocking environmental policies in accordance with their own economic self-interest.

The 'New Environmental Policy Instrument' (NEPI) – an international emissions trading system – which was introduced at the Kyoto summit, was introduced based on the US's positive experience with allowance trading in the acid rain program (Damro and Méndes 2005) which actually reduced costs by 50 percent from what was expected, and yet served their environmental goals (Eizenstat 1998). In that manner, a resemblance could be seen between the mechanisms in the Kyoto Protocol and the American 'pollution permits' scheme for reducing domestic sulphur dioxide (SO_2) and lead output (Banks 2000). Moreover, the US had several other systems which were developed that resembled the Kyoto permits trading system, such as the US Clean Air Act Amendments of 1990, the Southern California Air Quality Management District's Regional Clean Air Incentives Market (RECLAIM) and the South Coast Air Basin (SCAB) (Johnston 1998). For that reason there is perhaps not surprising that the US initially were positive towards the implementation of a trading system within the Kyoto context.

The idea of an international emissions trading system was a new approach to the problem of climate change. The mechanisms behind this NEPI have been provided by Leo Dobes (1999) in a useful descriptive general manner (see appendix 1).Because of the notations mentioned above concerning the inefficiencies and ineffectiveness, the US focus towards marked-based mechanisms was highly supported and applauded by the international business community. Such market-based mechanisms give strong incentives for business and are preferable to the business community because it creates tradable assets.

The idea during the negotiations at Kyoto was that regulatory flexibility intrinsic in the NEPI could replace environmental taxation with more control for business over the pursuit of profit. This form of regulation was viewed by the US as most cost effective, marked based incentives to attain the desired level of emission reductions.

3.0 The construction of the EU ETS

The EU ETS differs in some important ways from what is often characterised as standard model for trading systems. A standard system of emissions trading emphasises an environmental authority that imposes a cap on total emissions and then issues permits for units of emission where the total number of permits equals the cap. However, the EU ETS adopts a more decentralised structure of decision-making that gives much of the authority for key decisions to the Member States (Kruger, Oates and Pizer 2007).

3.1 EU ETS – its aims and objectives

As the EU's key climate policy instrument, the EU ETS for large CO_2-emitting installations in the energy and industry sectors is expected to help the EU and its Member States in reaching their short- and long-term GHG emissions target in a cost-efficient way. The shift towards market-based instruments induce demand for innovative, energy/carbon saving processes, products and services because the costs of reducing emissions will eventually be reflected in the market price (Schleich, Betz and Rogge 2007) for EU emission permits. There was, moreover, a general belief that industrialised countries had a particular responsibility to reduce their emissions and bear the costs of stringent regulations. Additionally, a key reason was the consensus among the leadership in the EU that reduction of emissions would be economically beneficial if incentives for developing sound technology could be provided.

3.2 The basic structure

The starting point for the EU ETS is an overall cap on total emissions from all sectors of the economy in all Member States that is equal to the EU commitment under the Kyoto Protocol. Given this overall cap, the central EU authority has specified the sectors of the economy that initially will participate in the trading system, namely the "trading sectors". This includes mainly four broad sectors: pulp and paper, energy production, iron and steel, and some mineral industries. These sectors is estimated to include some 12 000 installations, which account for

approximately 45 – 46 percent of CO_2 emissions in the EU (Boemare et. al. 2003; and Kruger et. al. 2007).

Within the EU-wide Kyoto target, each Member States embraces its independent national emissions target as determined under the EU burden-sharing (meaning the allocation of permits) agreement. As described in section 2.0, each nation is required to develop a NAP, which, among other things, emphasises the national emissions target in – according to Kruger et. al. (2007) – two steps. (1) It allocates the country's total emissions target between the trading and non-trading sectors. (2) It specifies how the permits in the trading sector will be distributed among individual sources.

4.0 Different phases, different outcomes?

As noted above, the implementation of the EU ETS consists of different phases. The pilot phase (2005-2007) is now history, and the main Kyoto commitment (2008-2012) has been entered.

4.1 Evaluation of phase 1

In order to introduce installations within the EU to emissions trading with a "soft landing" (Point Carbon 2008), particularly given the fact that the EU was the only region implementing such an emissions trading scheme, the authorities decided that the "lion's share" of permits should be allocated free of charge (what is referred as 'grandfathering') – at least 95 % during the pioneering phase (2005-2007) and at least 90 % in the follow-up phase (2008-2012) (europa.eu[a]). Moreover, EU governments were responsible for setting their own emissions caps with EU oversight. These NAPs had to demonstrate three things: how much of a country's Kyoto target would be met by the sectors participating in the trading system; how much of the cap was assigned to each sector – determining how much of the financial burden would fall on particular industries; and how the allocation would be divided among individual companies within the sectors. Soon, a market for emissions trading was established. With London as the centre of this

nascent global carbon market, the market achieved an impressive liquidity – more than 1.6 billion tonnes were traded in 2007, with an estimated value of $ 41 billion, over twice the total in 2006 (Tilford 2008). In addition, by mid-2007 EU countries committed themselves to invest € 7.5 billion by completion of phase 2 under CDM and JI, which would provide a reduction of CO_2 of the total amount of more than 2 billion tonnes (Tilford 2008).

4.1.1 (Over)-allocation

There has been differing views on whether or not phase 1 has generated positive outcomes. Phase 1 showed that the system did not prove itself to be as effective in the reduction of CO_2 emissions and as cost-effective as many had hoped or expected. In this respect, several critical voices have been raised concerning whether the market is the most efficient way of reducing emissions or not. An illustration of this "problem" could be seen when considering the excessive allocation of permits through EU Emission Allowances (EUA) by some Member States. When the first publication of verified emissions data became available in May 2006 after the introduction of the trading system, it indicated more allowances than what was actually needed. In turn, since the allocation plans were based on estimates of emissions rather than independently-verified, measured emissions, lead to a steep decline in permits prices. From an initial price estimated to € 30 per tonne CO_2 at the peak in April 2006, to € 0.10 per tonne CO_2 in September 2007 (Skjærseth and Wettestad 2008[b]). As a response to the volatile prices that occurred in 2006 (and in 2007) WWF-World Wide Fund for Nature (WWF) was one of the critical voices which states that the ETS being "... scandalous, failed system" (Skjærseth and Wettestad 2008[b]).

As an illustration we could look at Denmark in light of the problematic area of allocation of permits. In fact, Denmark was the only country that auction the maximum permitted 5 percent. For example, although generators received the vast majority of their (meaning companies) permits through 'grandfathering', they raised electricity prices as if they had paid for their permits, which resulted in reaping hefty windfall profits.

4.1.2 Loose ends

The Union's failure to set sufficiently tight emissions caps was partly due to the lack of consistent, historical data when caps were agreed in the first phase. As a result, the Commission was poorly placed to enforce cuts in proposed NAPs. Additionally, lax caps became evident as the result of the burden-sharing agreement of 1998 (Tilford 2008). Under this agreement, however, EU countries' Kyoto emissions target ranged between countries. This disproportional (when accounted for economic development and exceptional circumstances) distribution of targets, gave some Member States the "advantage" to undermine incentives to ensure that new industrial capacity is environmental sustainable.

4.1.3 In default of stringency

As pointed out in the last-mentioned section, the wide variation in the stringency of the NAPs reflected varying degrees of commitment on the part of EU Member States. It has additionally been voiced that many were determined to give their industries an advantage at the expense of others by manipulating the rules so that they could carry on with business as usual or even profit financially from the system (Tilford 2008). Moreover, at the EU level, a decentralised emissions trading system will leave the allocation of permits to the discretion of the Member States. The absence of harmonisation will lead each state to allocate total permits in light of total permits in 'rival' countries (Skjærseth and Wettestad 2008[b]). Michael Porter (1998) further argues that countries will be inclined to lower their ambitiousness to avoid loss of competitiveness. In other words, the Member States will have the incentives to protect their own industries by providing them with generous allocation – a somewhat intergovernmentalistic approach. For instance, countries that experienced quite demanding caps such as the United Kingdom (UK), basically subsidised companies elsewhere within the Union. When those UK-based firms emitted more than what was allocated to them, they were "forced" to go abroad and purchase permits from companies that faced undemanding caps, and thus had a surplus of permits. This provided a windfall gain for companies located in countries with high caps, but undermined incentives for these companies to reduce their emissions.

4.2 Preliminary prospects for phase 2

Phase 2 has only been operating for approximately a year now, and the difficulties in bombastically state the pros and cons, the paper seeks to emphasise some important elements which might be of great importance.

Yet again, the variety in stringency still remains in the submitted NAPs for 2008-2012. However, some commonly agreed criteria's have been reached. Together, they proposed national emissions caps 5 percent in excess of the verified EU emissions total for 2005. One crucial element to be considered now is the availability of the Commission to use this verified data to enable them to set a stricter line of policy. In fact, the Commission ruled that nearly all the submitted plans violated its interpretation of the EU ETS Directive (Tilford 2008).

4.2.1 Price volatility?

After the drastic fall in permit prices in 2006 and 2007, carbon prices have stabilised itself and stood at € 25 per tonne in mid-2008. There is – according to Simon Tilford (2008) – optimism over prices that firms will be able to 'bank' permits allocated in phase 2 for use in phase 3 of the scheme. One of the reasons for the "high" price expectancy is due to the proposed stringency of the third phase caps, which has had ripple effects on present prices on permits.

4.2.2 The "auction-tease"

In phase 2, governments are only able to use 'grandfathering' for 90 percent of the total amount given. That said, there are only half of the members who intend to auction any permits, and yet again, Denmark is expected to be the forerunner in auctioning by auction the maximum of 10 percent. In other words, the competitive distortions will persist, with companies in some countries being required to pay for their permits but not in others. Further, the 'evil circle' prevails when there are little incentives for one Member State to auction more permits if others do not. As a result, when auctions still is absent, power generators (as I illustrated above) will continue to earn windfall profits in phase 2 as they did in the initial phase.

4.2.3 The linkage to Kyoto mechanisms

When the 2004 Directive (europa.eu[a]) was adopted to stimulate the EU ETS to the flexible mechanisms from the Kyoto Protocol, which brought along the risk that some members would rather invest abroad to earn credits than reducing their emissions domestically. The Commission has notified this and has requested that a number of countries should limit their dependence on imported credits. The fact that the overall emissions caps are still relatively loose means that a large majority if the required reductions in phase 2 could – in theory – take place outside the Union itself. By earning credits by (sustainable) investments (such as CDM) in developing countries, releases the company from reducing the agreed emissions equivalent to credits earned. In pure economic sense, emissions are to be cut where it is cheapest to do so, however, there is a basic underlying conflict between what economic theory tells us is optimal and what is politically viable (Tilford 2008). In essence, stronger incentives are needed to reduce per capita emissions in the EU, and to spur the development of new technologies.

5.0 Theoretical approach to regulations in the EU ETS

5.0.1 Fundamentals

Regulation is by its very nature a difficult term to give a decisive definition and as a result been defined in a number of ways. However, Baldwin and Cave (1999) gives a definition which seeks the purpose in this paper. Regulation should be seen as deliberate state influence. Moreover, in this setting regulation has a more extensive meaning and covers all state actions designed to influence industrial or social behaviour. Since the paper further seeks to explore the difficulties of setting 'well-functioning' instruments of regulation, this definition – therefore – captures a wide range of modes of influences. In other words, deliberated state influence is compatible in terms of command-based instruments and the use of economic incentives.

In essence there could be multiple reasons why a government choose to regulate, however, this paper emphasise two main motives for governments – externalities

and windfall profits (as illustrated in an example above). The principle reason for regulating externalities (or often called 'spillovers') is that the price of a product "... does not reflect the true cost to society of producing that good and excessive consumption accordingly results" (Baldwin and Cave 1999: 11). Since the EU ETS mainly focus on the energy intensive installations, the 'spillovers' caused is seen as a public 'bad' and governments were somewhat enforced to protect the public from these externalities by imposing regulations on 'polluter pays' principles. In addition, the rationale behind windfall profits is based on the arguments in favour of incentives. In other words, governments seek to create incentives to search for new efficiencies, products or areas of demand. This is at the heart of the EU ETS – an effort to arrange incentives towards industries to reduce their emissions.

5.1 Economic regulation - a positive theory of economics

In an effort to decide the 'best suited' regulatory instrument, policy-makers will need access to technical economic expertise such as the degree of competition (Ogus 2004). Moreover, in determining whether, in relations our case of pollution, ex ante controls (such as permits/licensing) are to be preferred to ex post ongoing standards, it is a necessity to balance the administrative cost of the allocation mechanisms and the social cost caused by pollution.

When explaining regulation as a theme, there are a number of approaches that can be adopted. According to Baldwin and Cave (1999), there are five such broad approaches – *public interest* theories, *interest group* theories, *private interest* theories, *force of ideas* explanations and *institutional* theories. In order to pursue the regulatory explanations behind the implementations of the EU ETS, the *private interest* theory seeks this purpose in the most convincing manner.

The private interest theory – or a positive theory of economics – focuses on the extent to which regulations tends to serve the private interests of the industries under regulations. The positive theory of regulation tries to explain the form of regulation as the outcome of bargaining between various interest groups

(Newberry 2001). As the construction of the EU ETS and the NAPs were in process, regulated industries exploited their interests by lobbying towards the regulatory agencies and most notable in relations to the allocation of permits. Moreover, as the positive regulation theory embraces, there is a demand for regulation both by the industries and the public. As notified earlier, the EU demands a reduction of CO_2 emissions through the political process, while industries and companies seek to guard future profits of their investments from the demands of the Commission. However, as phase 2 now in process, calculating how much companies will need to emit in future are "... now just routine aspects of business operations" (Financial Times 2008[a]), which points to the fact that companies now "accept" the fact that emissions are to be reduced. Nevertheless, companies need the cooperation of their national government to grant permits and protection against excessive taxes and regulations as well as for international competition which harm their future profitability. On the other hand, politicians demand payback from companies in the form of general emission reductions by simultaneously keeping energy prices reasonable, adequate supply of good, and no unfair discrimination.

Have these demands actually been met? Positive theory will attempt to explain possible changes in regulation as adjustments of supply to demand (Newberry 2001). As seen, phase 1 of the EU ETS regulatory market gave extremely little gains in terms of reduction of emissions, moreover, as illustrated by the generators above, new costs (or "imaginary" costs set by the companies) are conferred to consumers. Another important issue (which will not be discussed in greater detail in this paper) is the unfair discrimination of those industries that does not include in the trading scheme (e.g. aviation) and thereby avoids the extra cost of reducing their emissions. Phase 2, is somewhat difficult to evaluate at present time because of the lack of adequate data available, however, a reduction of grandfathering (free allocation of permits) to the industries might stimulate the reduction rate of emissions. In light of the findings in primarily phase 1 has proved that the supply side is not adequate to meet the demand side. In other words, the efficiency of the EU ETS regulation has not yet proven to be viable.

5.2 Regulatory competition

The theory of regulatory competition stems from Charles Tiebout's original article in 1956 where he argued that decentralised governmental system, with horizontally arrayed jurisdictions competing to attract residents on the basis of differing tax and benefit structures, produces efficient outcomes (Geradin and McCahery 2004). Moreover, regulatory competition is an economic theory of government organisation that equates decentralisation with efficient result. In light of this, has the decentralised structure of the EU ETS brought forth efficiency? As concluded in last-mentioned section, it has not.

Furthermore, competition occurs in different "stages", meaning between nations, national regulators, at the regional or local level, or even between sectors. Baldwin and Cave (1999) emphasises three conditions which have to be obtained in order to embrace a regulatory competition. (1) *Freedom of movement* involves that producers of goods or services must be free to move between the jurisdictions of the regulators. Initially, this could be difficult in terms of the mission for this paper; however, a broad interpretation of this 'freedom' element could be labelled on permits. In essence this means that those permits that are to be given are "free" to move into those installations which are entitled to get them. Since the EU ETS embraces energy intensive installations, permits have to be freely allocated between the chosen companies, not necessarily to those who "lobby" the most which would obstruct the meaning of freedom. (2) *Information* – in essence – would mean to emphasise somewhat perfect information symmetry between regulators and those who are regulated. In other words, it must be possible for those installations who are abating to reduce their emissions to gain information for example in terms of how must the governments NAP is allocated to them and their competitors. Moreover, on the other side, governments are crucially dependent on correct information from the regulated industries. It is basically impossible for governments to set up NAPs if the information does not add up to what each sector actually pollutes. In a broader context, at the EU level, national governments for instance are equally responsible to inform to what extent the level of emissions are in the country. Last, (3) *enforcement* involves the regulators possibility to act "trustworthy". It means that if there are to be regulatory

competition, other regulatory institutions have to be certain that enforcement is one tool to be assessed if necessary. As an illustration, the difficulties in the stringency of the NAPs have created an uncertainty momentum between countries and their dedication to actually reduce their emissions.

In short, one could say that theory of regulatory competition is that "... if conditions are competitive these will force regulators to 'race to the top' – where the 'top' involves establishing the combination of regulatory rules, processes, and enforcement practices that citizens/consumers desire" (Baldwin and Cave 1999: 182).

5.2.1 EU ETS as a NEPI of regulatory competition

As implied, the EU ETS represents a quite distinctive example of 'Multi-Level Governance' (Buchner, Catenacci and Sgobbi 2007). At the EU level the dominant mode of governance seems to be characterised by regulation and administrative decision-making, under the Commission leadership. Moreover, when moving towards the national level, the interaction with industries and installations plays a crucial role, assigning more importance to individual decisions and to the use of market instruments during the EU ETS pioneer phase.

However, limitations and disadvantages of regulatory regulations are evident such as cross-market failures which call for regulatory coordination across national or industrial boundaries (Baldwin and Cave 1999). In terms of the less successful implementation of a common European utilised method of the EU ETS, might be ascribed to the distributional conflicts of permits.

5.2.2 Regulatory capture

The actors involved in the EU ETS show distinctive roles at different levels of governance. At the international level, national control over setting individual NAPs gave it fundamental decentralised character compared to the US cap-and-trade system used on SO_2 and NO_x. Moreover, since the Commission were to set out permits, they realised the importance of stakeholder's consultation and analysis and carried out several consultative processes (Buchner, Catenacci and Sgobbi 2007). This led to active involvement from the affected industries.

Furthermore, the total cap of emissions were given by the sum of all the caps set at the national level, which gave the Member States a crucial part in the EU ETS.

In an article in the Financial Times present week illustrate this momentum. As mentioned earlier, the allocation of free permits in phase 2 were reduced by five percent (meaning 90 percent grandfathering), which in turn will imply that installations must buy (or sell if 'over-allocated') permits to reach their economic equilibrium. At the UN Climate Change Conference 2008 in Poznań, Poland, the capture momentum came evident when European industries "... poised to reap a more generous share of free pollution allowances than first expected after persuading policymakers that proposed legislation would impose steep costs on manufacturers and threaten jobs" (Financial Times 2008[b]). As a result, Angela Merkel and Germany led an effort to ensure that companies *will* receive free permits is they are forced to compete against companies from non-EU countries.

6.0 Future prospects and recommendations

In January 2008 the Commission launched its proposal for a revised ETS in the post-Kyoto 2013-2020 period (europa.eu[b]). In this proposal, the Commission has taken the centralisation process already started in NAP 2 (meaning the NAPs for phase 2) further and proposes a centralised and harmonised cap setting process at the EU level. If this proposal follows through, NAPs will not be needed anymore. Moreover, if no 'satisfactory' global agreement is reached in the next years, then no new CDM and JI credits will be allowed to enter the ETS from 2013 on. This will then probably lead to less interest in CDM projects. However, if such an agreement is reached, then the opening up for CDM is increased considerably (Skjærseth and Wettestad 2008).

As for some (humble) recommendations, the need for a *much greater centralisation* is needed. For instance, instead of EU governments calculating and proposing emissions caps for their installations, the EU needs an EU-wide cap that is consistent with long-term targets for emissions. In this context, a *much longer timeframe* on reduction of emissions is needed. To be able to have long-

term investments on, for example, clean technology, companies need a cap which stretches itself for a longer time period then 2020 as it is today. This would mean that industries could plan ahead to greater extent. Moreover, *a move towards full auctioning* should be the aim. This would result in a more "fair" way of distribution policy (having considered the abatement costs). This would further lead to a combination of cooperation and competition between and within governments, and between governments and non-state actors, which would lead to more transparency and decrease the chance of capturing the regulator (Geradin and McCahery 2004). Last but perhaps most importantly, *cuts in domestic EU emissions* should be the main driver, not only invest in CDMs to get credits.

7.0 Concluding remarks

In this paper I have tried to review the EU ETS. The greatest achievement it has managed to do is (1) actually set a price on emissions and most notably CO_2, and (2) implement a market-based mechanism of cross-sectional integration. In spite the massive allocation of permits given through grandfathering and the lack of stringency, the two achievements are to be valued more. The allocation difficulties became severe in phase 1 and probably will over-allocation also be evident in phase 2, but in essence the importance to bring forth a system which are of such importance as the EU ETS actually is, should be applauded more than what it should be criticised.

In the sphere of regulation it has become more pronounced that market-based mechanisms should be used. I showed this in terms of the retrospective glance of the history. Moreover, through a private interest theory, the reader got an insight of how the regulatory body of this policy was conducted and still is. It became apparent in this section that there were some catches for example in light of information, or more precisely, the impossible nature to get perfect information. Furthermore, the real, in my opinion, 'downside' of this system is the capture element. The capture theory is strong also in this policy – as in many others – and truly undermines the basic cause of this environmental initiative. Even so, as I elaborated to some extent at the end of this paper, the future might bring forth

many positive initiatives if the correct actions are put into effect. There is little doubt that emissions trading will develop into a more autonomous and transparent system, however, there is still much to learn from the implementation of the scheme and the challenge new economic instruments demand of regulators.

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Appendix

1:

> Tradable permits… represent a right granted by a government to the permit holder to emit a specified quantity of gases. By issuing only a limited number of permits governments can control the total quantity of gas emitted, on a local, national or international level. Because permits are usually limited to a quantity that is less than the amount of gas that would normally be emitted, the right to emit becomes a valuable commodity. If trading of permits is allowed, then a market price will be established. Those wishing to emit the specified gases beyond permitted levels must either reduce their emissions or purchase permits to emit. Polluters able to reduce their emissions relatively cheaply will do so, rather than purchase permits. Those polluters who face higher abatement costs will tend to buy permits to satisfy government requirements. In this way, reductions in emissions are made by those polluters who can do so at least cost, being compensated by polluters who face higher costs of abatement.